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Digitalising Local Democracy: Citizen Participation in Monitoring Local Government Elections through Crowdsourcing Methods in Tanzania

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Abstract

Election is one of the cornerstones of modern liberal democracies and digital crowdsourcing is a growing phenomenon for monitoring electoral process. Election monitoring organisations have embraced digital platforms for crowdsourcing election data. Despite the existence of crowdsourced local information via digital spaces, limited research investigated crowdsourced election monitoring at local government level in Tanzania. We used document analysis to review types of crowdsourcing and semi-structured interviews to explore challenges surrounding citizen participation in monitoring local government elections. We found that digitally enabled crowd-monitors participated in monitoring and sharing information related to malpractices and positive conduct in the 2014 local elections. While crowdsourcing is deployed in local elections, costs, poor preparation and planning, digital divide, trust and poor infrastructure may hamper crowd participation in monitoring. In order to improve existing efforts, we propose opportunities to promote crowdsourcing citizen participation through digital tools in forthcoming local elections. These includes the use of mobile phones for free short message services, early planning and building partnerships among government institutions, election monitoring organisations, and

the citizens. Therefore, digital crowdsourcing is not a silver bullet in addressing all challenges of electoral integrity; rather other traditional monitoring approaches are indispensable.

Keywords
Citizen participation, digitalisation, crowdsourcing, election monitoring, local government

1. Introduction

The influence of digitalisation on contemporary political life is ubiquitous. The omnipresent information and communication technologies (ICTs) and crowdsourcing methods have changed the way of monitoring and sharing election information in near real-time. The crowd methods have the "potential to improve the quality of election monitoring by complementing existing approaches" (Fung, 2011:193). Rather than knowledge generated by and concentrated on a few elites, technology is creating an environment for the crowd to engage in monitoring elections with the potential of generating more credible election monitoring information. As one of the crowdsourcing advocates puts it, small groups of people, no matter how intelligent, will not be smarter than the larger group (Surowiecki, 2004).

Crowdsourcing has also been used to map post-election. In Kenya for instance, following fraudulent presidential elections that sparked violence in 2007, the crowdsourcing platform called *Ushahidi* ("witness") was created to map incidents of post-election violence occurring in the country, while also alerting the authorities for response and action. The launch of *Ushahidi* platform in the post-election violence in Kenya motivated various civil societies to initiate similar online platforms (Shayo, 2020). As a result, in 2010, election watch organisations from Kenya, Uganda, and Tanzania, together with the *Ushahidi* innovators, launched a dedicated platform for "Election Watch for East Africa" called *Uchaguzi* ("election") (Fung, 2011). The aim was to engage citizens in protecting the integrity of elections through technology. The *Uchaguzi* platform makes citizens with access to mobile phone and internet services to observe and share monitoring information (Shayo and Kersting, 2017). The development of *Uchaguzi* platform amplified the opportunity for the citizen to be part of election monitoring. However, given the new wave of crowdmonitoring through technology, research in Tanzania has primarily

focused on the national level, that is, presidential and parliamentary elections (Shayo and Kersting, 2017; Shayo, 2017; 2021). As a result, little is known about digital crowdmonitoring in local government elections.

Analysis of digital crowdmonitoring for local government election is important for three reasons. First, most analyses related to crowdsourced monitoring are conducted at national level for presidential and parliamentary elections (Bock 2012; Bader, 2013; Bailard and Livingston, 2014; Hellström, 2015; Shayo, 2017, 2020, 2021; Shayo and Kersting, 2017). Other analysis focuses on comparing traditional and crowdsourced election monitoring, and an overview of the academic literature on domestic monitoring (Grömping, 2017). Second, mobile phones and internet access have become relatively widespread and constitute new, important resources for decentralized crowdmonitoring. Third, a literature search shows that limited studies have yet analyzed crowdsourced monitoring of local government election in Tanzania. The interest to explore digital crowdmonitoring of local elections is motivated by three factors: (i) "elections at the lower levels is the best way to enable most of the citizens to exercise democracy", (ii) "local elections provide indications about the political direction of a society and the anxieties and values of voters", and (iii) "elections give citizens an opportunity to exercise their constitutional rights" (Liviga and Ahmed, 2006:44). In this case, this article has two objectives: outlining types of crowdsourcing in a local election monitoring context, and exploring challenges to citizen participation in digital crowdsourcing of local government elections.

This article proceeds as follows. Section two offers an overview of Tanzania's local government elections. Section three discusses literature, especially related to crowdsourcing monitoring and the types of crowdsourcing. Section four discusses citizen participation in monitoring local elections through digitalisation process. Section five is devoted to the data methods used to understand the challenges and opportunities of citizen participation through crowdsourcing in election monitoring. Section six presents results from the use of social media in crowdsourced local election monitoring. Sections seven and eight address the challenges and opportunities for citizen participation in local election monitoring through crowdsourcing. Finally, section nine presents conclusion.

2. The context of local government elections

The United Republic of Tanzania is the union of two independent countries of Tanganyika and Zanzibar. In 1992, multipartyism was legalized, and Tanzania became a democratic pluralist state with a multi-party system to accommodate competition, diversity and participation. However, since then, *Chama Cha Mapinduzi* (CCM) has dominated Tanzania's political landscape, holding the presidency and the majority of seats at both local and national levels. The Constitutional Amendment in 1992 and enactment of Political Parties Act No.5 of 1992 provided the legal framework for the re-establishment of multiparty politics. The failure to change the legal and constitutional framework since 1992 has meant that the single-party dominance has never been addressed institutionally, despite political pronouncements favouring pluralism (TACCEO, 2015).

Local government authorities in Tanzania were abolished in 1972 and revived in the 1982. Local government elections in mainland Tanzania are used to elect village chairpersons, hamlet leaders and village council members in the rural areas, and *Mtaa* ("urban neighbourhood") chairpersons and members of the *Mtaa* committees in the urban areas (Liviga and Ahmed, 2006). While ward councillors serve at the local level, it is not known or documented why they are elected during national level elections. Local government elections are usually conducted every five years – one year before national elections. The first local election after the re-introduction of multi-party politics was held in 1994. This election was held per the Local Authorities Elections Act of 1979, as amended in 1992, 1993, and 1994. The local elections are governed by the constitution, the principal laws, subsidiary legislation, government circulars, and guidelines issued by the Minister responsible for Local Government Authorities. The legal framework that governing elections provides the regulations governing voter and candidate qualifications, registration, campaigns, voting, tallying, and result declaration (TACCEO, 2015). For example, all citizens of 18 years and above are eligible to register as voters. As for the candidates, the laws state that they must be affiliated and sponsored by a fully registered political party, meaning independent candidates cannot contest in elections.

Local elections used to be coordinated and supervised by the Prime Minister's Office responsible for Regional Administration and Local Government. However, from the fifth regime, local elections are coordinated

by the Presidents' Office through the Minister responsible for Regional Administration and Local Government – a presidentially appointed position. In this, the executive directors (City, Municipal, Township and District) are the principal returning officers, while ward, village, *Mtaa*, and other government officials serve as assistant returning officers. The minister takes total control of the coordination and management of the local government elections, leading to concerns over a lack of independence from the ruling party and government. The main laws that govern local government elections are the: Local Government (Elections) Act of 1979, Local Government (Urban Authorities) Act of 1982, and Local Government (District Authorities) Act of 1982. There are also several regulations and guidelines under these laws for the management of local government elections.

Citizen participation in local government elections may promote the quality of democratic processes as, in today's world, there are growing concerns surrounding the quality of democracy at the local level (Chaligha, 2014). Tanzania has since conducted six local government elections in 1994, 1999, 2004, 2009, 2014 and 2019. In 1994 first local elections under multiparty system, there was no any local election monitoring organisation to observe Tanzania's local multi-party elections. In the 2009 local government election, it was reported that Tanzania respects the right of citizens' participation in the governance of the state (TACCEO, 2015). But in the 2019 local government elections, citizen participation in crowdsourcing monitoring was denied. This is because the well-established non-governmental organisations that deployed digital crowdsourcing to monitor local elections were denied accreditation, including TACCEO (The Citizen, 2019). The government's refusal to provide accreditation for local election monitoring to the credible and experienced organisations further eroded confidence in promoting fair electoral process (U.S. Embassy Dar es Salaam, 2019). TACCEO initiated citizen participation in electoral monitoring, and the only organisation that had invested in local election monitoring in 2009 and 2014, but was not accredited in 2019. This is why this article's exploration of citizen participation in crowdsourced monitoring focuses on the 2014 local elections and not the more recent 2019 ones.

3. Crowdsourced monitoring of local elections

The idea behind crowdsourcing local elections monitoring is the timely detection and near-real time provision of information and response (Fung,

2011). Digital crowdsourcing may play an increasingly innovative role in the ways electoral stakeholders observe, generate and communicate incidents of electoral integrity in order to establish the credibility and/ or incredibility of the electoral processes (Shayo, 2020). Transformation to digital participation and crowdsourcing methods is a means to promote participatory democracy. The "wisdom of crowds" method and application of digital tools may facilitate participation, increase electoral incident identification and promote real-time interventions. Howe (2006) described crowdsourcing as the process by which many people can come together to accomplish tasks once performed by a few individuals. Crowdsourcing focuses on a large, undefined group of people brought together to collaborate and solve complex problems. The initial engagement is done through digital technologies to facilitate the participation of undefined groups and to promote the open call (Kersting, 2020). Other authors define crowdsourcing as the "mobilisation of the general public-the crowd-to perform what are usually small, incremental tasks that, taken together, accomplish significant goals" (Bailard and Livingston, 2014:355).

On the other hand, crowdsourced election monitoring is defined as a system in which:

> [A]ny individual can register an observation about an election, and that observation is pooled with other individuals' observations to create a public depiction of the reality of the election that is offered back to the public and to election officials in real-time on election-day (Fung, 2011:194-195).

Election monitoring organisations may register as many participants as possible to create avenues for the crowd to observe and quickly share data once the incident is verified (Shayo, 2017). TACCEO (2015) reported the objectives of digital crowdsourcing monitoring as follows: (i) to establish a single-point election information access hub where citizens can access information about the electoral process through partnerships with other information sources, such as media houses and citizens themselves; (ii) to empower citizens to observe their elections and establish platforms to amplify their voices when they report on election issues happening in their communities; (iii) to provide a platform to forward issues to the responsible authorities for action in a timely manner, and (iv) to establish a virtual space where citizens can meet and discuss the going-on election, airing their views,

demands, satisfactions, and dissatisfactions, and share what is currently going on in their areas and how they think the process can be improved to ensure a free and fair election.

Existing literature on crowdsourcing monitoring focuses on national-level elections. Bailard and Livingston (2014) explored how digital communication technologies facilitated crowdsourced accountability monitoring in the 2011 Nigerian national election. Crowdsourced method with the use of digital spaces has been deployed to ensure accountability in the promotion of elections with integrity. On the other hand, Bader (2013) assessed the collective ability of citizen contributors and the overall effectiveness of crowdsourcing as a tool for collecting credible information about fraud in the 2011-2012 Russian elections. Crowdsourcing is a method for co-production and rapid dissemination of election malpractices. That is why access to ICT tools and citizen monitoring platforms like UgandaWatch can be useful for political participation (Hellström, 2015). Bock (2012) found georeferencing crowdsourced citizen-generated data in the 2008 Kenyan post-election violence created the potential to identify violence at specific locations and provide an early warning to citizens. In a similar vein, Trujillo et al. (2014) showed how technology helped mitigate election-related violence in the 2013 Kenya elections. PeaceTXT, Umati and Kenya Elections Hub used digital technologies and crowdsourcing to detect and share threats of violence in the Kenyan 2013 election.

Shayo and Kersting (2017) pointed the ability of trained crowdmonitors to generate information about mobilizing women, youth, and people with disabilities in the 2015 Tanzanian general elections. Technology usage and citizen monitoring generated pre-election information beyond that of international election observation groups for pre-election information. The idea of crowdsourcing and digitalisation of electoral incidences is a "quick detector and pointer" that operates over large areas and capable of producing big data in a broad range of electoral issues and near-real time feedback. Therefore, in an environment plagued by challenges of election integrity, crowdsourcing may facilitate identification of problems and formulation of appropriate interventions to detect and mitigate electoral irregularities. There are various reasons as to why digital crowdsourcing is an important method for monitoring local elections, among others, to promote peaceful electoral process, and enhance citizen participation in democratic spaces.

In addition, there is very little investment in monitoring local government elections by both local and international observers. Monitoring local elections is more complex because of the traditional observers' capacity to monitor grassroots level elections. As a result, the challenge of little investment can be addressed by digital crowdsourcing method through the use of volunteers. With little investment of communication channels for processing generated data, crowd can contribute in protecting the integrity of local elections. Also, the organisation of and coordination of local elections by the Ministry responsible for local government authorities, do not offer opportunities for inviting external observers compared to national level elections coordinated by the National Electoral Commission. This is because inviting external observers may be a huge burden to observe local elections because of the numbers of *mtaa*, villages and hamlets. Also, there is a deficit of external observers in terms of small number of monitors and coverage level, as external observers tend to focus on accessible and safe urban areas. Crowdmonitoring may address the challenges of relying on few experts in monitoring elections. The few trained traditional monitors cannot go in every place to see what is happening. Because crowd are everywhere they can share as much information as they can. Depending on the trained experts to monitor and produce reports about electoral processes often missed the knowledge of local people, who are largely at the grassroot levels (Shayo, 2017). But crowdsourcing and trained traditional election monitors cannot work in isolation for monitoring processes, rather partnership is required to engage both monitors in monitoring and communicating the conduct of elections. Digital crowdsourcing involves different players, from different backgrounds to make positive contributions in establishing integrity and trust of the elections reports and feedback to the public.

Therefore, crowdsourcing methods harness the power of today's communication technologies to liberate the potential which exists in large pools of people. Establishing digital platform for citizens to participate in crowdsourcing may address the marginalisation of electorate in protecting the integrity of their local elections. But traditional monitors faces various challenges during monitoring process such as lack of cooperation from relevant authorities and fears of the voters to share with them information related to elections. The traditional method of election monitoring using structured tools may miss out important information. That is why the growing

adoption and usage of digital platforms and crowdsourcing methods may act as a tool for protecting electoral integrity.

Types of crowdsourcing citizen participation

Crowdsourcing monitoring can either be carried out through unbounded crowdsourcing, which is more informal and where participation is non-discriminatory. In principle, anyone is allowed to participate and share election data via digital channels. But bounded crowdsourcing is a more systematic method that recruits and trains volunteers, workers, or observers to undertake the monitoring and data verification exercise. While passive crowdsourcing is a form of data mining from social networks (Hellström, 2015). The three types of crowd-monitors are used for monitoring, generating and reporting positive and negative feedback of electoral process. Crowd-generated and approved data are visually mapped in a crowdmapping platform. Crowdsourcing facilitates timely delivery of the verified incidents to the relevant authorities for action and feedback. The crowdsourcers may engage all types of crowdfeeders in their systems, or may opt for one or two types of the crowd depending on their ability and capacity to handle and process the large volume of incoming election data.

Bounded crowdsourcing

Bounded crowdsourcing means recruitment, selection and training of citizens to participate in generating trusted election monitoring data. It usually involves the recruitment of "trusted" monitors from the crowdsourcing partner network (Shayo, 2021). Bounded crowdsourcing is cheaper than conventional recruitment as participants are recommended by those within their already established network (Meier, 2009). Bounded method increases the likelihood of electoral accountability and reliability of the crowdsourcing monitoring data. In the 2014 Tanzanian local elections, bounded monitors was recruited and engaged by TACCEO to generate monitoring data through ICTs. TACCEO established communication channels for crowdsourcing information, including social media, short message services and the Whatsapp instant messaging application. TACCEO managed to train and deploy a total of 25 regional monitors in 25 regions of Tanzania's Mainland. Regional monitors were responsible for training 165 district monitors before being deployed to their districts to keep an eye on the entire exercise. TACCEO selected citizen monitors familiar with the geographical areas to work under minimal

supervision. Citizen monitors were trained to use ICT systems like SMS syntax with specified report codes designed for generating election monitoring data. Traditional election monitoring missions usually deployed trained monitors using strict methodology, that include systematic training of Long-Term Observers (LTOs) and Short-Term Observers (STOs). Also, there is a design of detailed questionnaires and forms, and clear codes of conduct that can guarantee the success of an observer mission. This is also the same case with recruiting and training long term bounded monitors at various stages of the electoral process, and short-term bounded observers on election-day event.

Unbounded crowdsourcing

Unbounded crowdsourcing simply means that anonymous individuals can use digital technologies to monitor and share electoral incidents through established channels (Shayo, 2021). This method entails engagement of large group of people through open-call to participate in monitoring process. Unbounded crowdsourced information is treated as "untrusted" and requires authentication to determine the validity of the incidents before publicly sharing (Shayo, 2017). Unbounded groups of citizens are invited to generate monitoring data through social media accounts, emails, web-based forms, SMS, and Whatsapp, but their election-related monitoring information is processed for verification by trained citizen data verifiers. In Tanzania's 2014 local government elections, unbounded crowd monitors were engaged through an open call by TACCEO. They used digital tools, such as social media accounts – mostly Facebook and Twitter, SMS, and mobile short codes to share observed incidents.

Passive crowdsourcing

Passive crowdsourcing means listening to social networks and generate election reports (through data mining) shared by platform users within their own networks. Digital users share election incidents on online platforms such as Facebook, Twitter or Instagram. However, passive monitors do not report incidents directly to the crowd-initiators, instead, the group complains in the online networks about illicit acts of the electoral process (Shayo, 2017). Digital volunteers can capture shared information through data mining from digital forums. Therefore, passive monitors are indirectly engaged through digital ICTs – specifically social media platforms – by having their data mined by crowdsourcing systems. The crowd-initiator's role is to generate and verify

information shared on the platforms and share that data with the larger public through other channels accessible by the intended group of voters.

4. Digitalisation of local elections monitoring

Digitalisation of election monitoring is oriented towards electronic possibilities to strengthen promotion of local democracy and for citizens to share political information in a timely manner. With advancements in technology, ordinary citizens are invited to participate in monitoring elections. Elections provide frameworks for citizens to participate in decision-making and to choose individuals to hold public office on their behalf. That is why Article 21(1) of the Universal Declaration of Human Rights of 1948 states that: "everyone has the right to take part in the governance of his country, directly or through freely chosen representatives."

The Legal and Human Rights Centre (LHRC), for the first time in Tanzania's democratic history, participated as an observer in the October 2009 local government elections. This move was complemented by the organisation's efforts to enhance civic awareness and citizen participation in the country's democratic process (TACCEO, 2015). That spirit encouraged the LHRC and other CSOs in 2010 to form the Tanzania Civil Societies Consortium on Election Observation (TACCEO)–a loose non-governmental, non-partisan and non-profit organisation of 16 election-observing NGOs in Tanzania. These NGOs have since started initiatives to engage citizens in election monitoring through ICTs.

Digitalisation proliferates and affects local political system. With growth of digital technologies, there are ample opportunities of using available technological tools to monitor and share best practices of election information in a fashionable way, and to inform the larger community about the conduct of elections in near-real time. Citizen participation in monitoring local elections through digital crowdsourcing is vital for promoting inclusivity in democratic processes (Bader, 2013). Digital tools are central in the coordination of citizen participation in monitoring and sharing electoral incidents. Election monitoring organisations can play a role in launching a medium to engage large groups of citizen monitors (Hellström, 2015). These organisations are the main locus for crowd participants to make collective decisions about local government elections. Crowdsourcing harnesses the power of today's communication technologies to liberate the potential that exists in a large group of people (Howe, 2008). The widespread nature of

digital technologies in developing democracies has contributed to crowdsourcing and facilitates citizen participation in election monitoring (Fung 2011).

Technology and citizen participation in the 2014 local government elections

In 2014, TACCEO introduced ICTs in monitoring local government elections through crowdsourcing for the first time in Tanzania. The strategy meant to provide space for citizens to use ICT devices – primarily their cell phones – to effectively engage in election monitoring throughout its cycle (TACCEO, 2015). The process of citizen participation in monitoring through ICTs was not only interactive but also cost-effective. Despite the urban/rural digital divide, this mobile phone penetration provides Tanzanians the means to share election feedback using ICTs. ICTs assist in creating a more rapid reporting and early warning system and add citizen's voices to the election monitoring process (ibid.). Crowdsourcing used multiple channels that apply open-source principles, such as SMS and social media networks, to easily gather information from a large group of people. In the 2014, ICTs were leveraged to bring together citizens, non-governmental election monitoring organisations, the media, and other partners into a truly citizen-oriented process of electoral monitoring before, during, and after the election period (TACCEO, 2015.

TACCEO considered the use of technology as a golden opportunity to ensure maximum public participation to provide effective monitoring at an affordable cost (ibid). The use of ICT devices ensured that citizen-generated election monitoring reports are promptly reported and responded to. ICTs were used as a mechanism to observing the election, with a central hub mounted at the TACCEO office in Dar es Salaam to which citizen observers could send messages regarding the local elections (ibid.). In the 2014 local elections, social media networks were deployed to generate crowdsourced monitoring reports for the elections of Village, *Mtaa*, and Hamlet leaders. It is worth noting that, for the first time in Tanzania, local government election monitoring employed mobile, wireless, and web-based technologies to report electoral incidents. Local election monitoring was done through 165 TACCEO monitors deployed in 165 local authorities, but the lack of sufficient funds and the geographical size of the constituencies limited the deployment of more observers (ibid.).

The selection of TACCEO's election monitors was based on several factors including, familiarity with the geographical areas, election monitoring

experience, educational background, and the ability to use digital tools and ICT systems that TACCEO designed for the 2014 local elections (TACCEO, 2015). In this process, there were 25 coordinators or field observers called "district observers." The role of the district observers was to inform the ICT administrators of what was going on the ground. The ICT hub was there to record, verify, and post information on social media pages for public consumption, while the coordinators ensured that all administrative and technical issues were properly handled (ibid.).

The ICT hub was in operation for fourteen days and received anonymized data from the 25 regions of Tanzania's Mainland. According to TACCEO (2015), the structure of the ICT hub included anoperator or technical section that ensured all ICT devices and channels were working properly and created a solid backup of all information. Twenty-five zonal regional coordinators reported to the hub continuously with reports from monitors in the field and suggestions for action. Verification processes dealt with crowdsourced monitoring information, generated through social media networking sites – mostly Facebook, Twitter, and Whatsapp. TACCEO verified information through regional coordinators and communicated that information back to the public through various media channels (TACCEO, 2015). There was also an appeals and referrals section to ensure that crowdsourced information was communicated to the relevant authorities to sort out irregularities and challenges before sharing the generated data with the public.

5. Data and Methods

This paper collected data through semi-structured interviews with key informants and document analysis, such as consultation of election observation reports and training manuals of citizen monitors. Using a purposive approach, semi-structured interviews involved researchers and academic members of the University of Dar es Salaam, Dar es Salaam University College of Education, and Mkwawa University College of Education. These universities have Political Science departments, in which research on local governance and local democracy is conducted by researchers and academic members of the department. Non-governmental election monitoring organisations (NGEMOs) members like TACCEO were also interviewed. About 13 respondents were purposively selected for key informant interviews. For the respondent to be included in the list (see Table 1), they had to meet at least one of the following criteria: i) have participated in monitoring local or

national level elections; ii) published about local or national level elections; iii) were members of NGEMOs that participated in local or national level election monitoring.

To explore the research objectives on crowdsourcing processes, typology and challenges, interviews were conducted through face-to-face and online in Dar es Salaam and Arusha. These semi-structured interviews were audio-recorded with the respondents' permission.

Table 1: List of key informant interviews

Interviewee	Role	Method	Date
Interview A	Researcher	Phone	05.08.2020
Interview B	NGEMO official	Face to face	06.10.2020
Interview C	Researcher	Face to face	14.08.2020
Interview D	Academic	Face to face	19.08.2020
Interview E	NGEMO official	Face to face	09.09.2020
Interview F	NGEMO official	Phone	10.09.2020
Interview G	Academic	Face to face	24.09.2020
Interview H	Researcher	Face to face	05.11.2020
Interview I	Academic	Phone	11.11.2020
Interview J	NGEMO official	Phone	07.11.2020
Interview K	NGEMO official	Phone	24.11.2020
Interview L	Researcher	Face to face	17.11.2020
Interview M	Academic	Face to face	19.11.2020

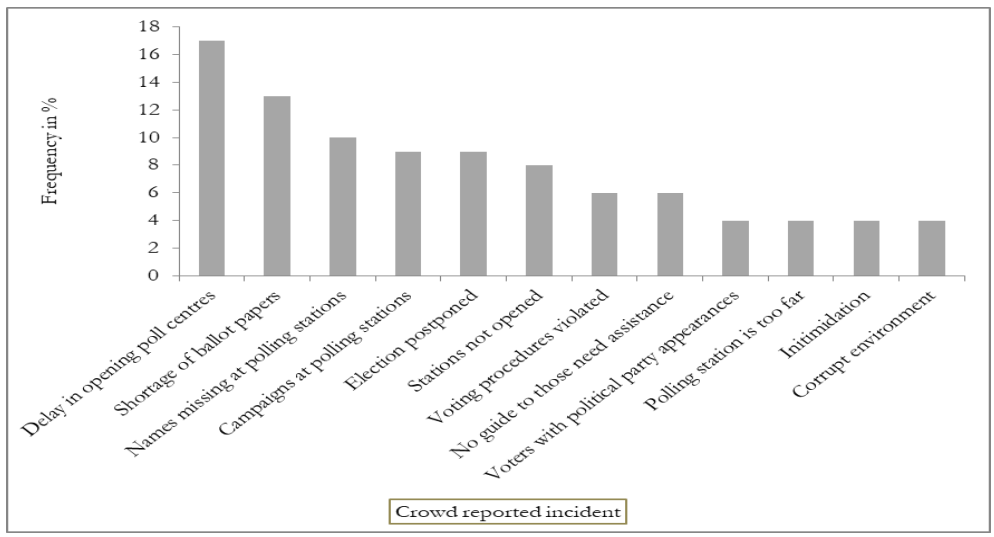
6. Results

Social media and crowdmonitoring of local elections

Through crowdsourced monitoring in the 2014 local government elections, TACCEO was able to generate several negative reports through digital tools. Figure 1 presents the monitoring data reported most by the crowd observers through digital channels. The most frequently occurring events observed during the election period were delays in opening poll centers, shortages of ballot papers, and names missing at polling stations. Moreover, there was serious campaigning at polling stations, contrary to election regulations and voting violations at polling stations. Social media data on election-day showed

some disappointment that the Ministry responsible for the local government elections had failed to organize and coordinate the election as required by the law (TACCEO, 2015).

Figure 1: Most frequently reported incidents by the crowd



Source: TACCEO (2015).

The use of social media in the 2014 local election

ICTs have enabled digital citizens to amplify their voices and participate in election monitoring, primarily through social media. Social media section on the TACCEO election monitoring hub initiated a Facebook page titled *"Taarifa za Uchaguzi Tanzania"* ("Tanzania election observation reports") and the Twitter account *"@ChaguziTanzania"* ("Tanzania elections") to promote citizen monitoring. These accounts on Facebook and Twitter, together with Whatsapp, were initiated to generate and share information during the election process. The TACCEO election monitoring hub also developed a special system for monitors to report what was observed in the field through SMS syntax, with specified reporting codes (TACCEO, 2015).

According to TACCEO (2015), social media communication was done in two ways: first, communication between the public and the ICT election hub. This type of communication was instigated to give and receive election

information tips. The information received from the public was then communicated to trained TACCEO observers and authorities in the field for verification. Verified information was posted back on social media platforms to increase public knowledge and awareness of the ongoing election process. Second, social media was meant to be a communication tool between citizen observers in the field and the ICT hub. Citizen monitors used social media accounts to send videos and pictures, and their stories were then shared on Facebook and Twitter account for public consumption. It is reported that, up to December 15 2014, the Facebook page set for election observation had attracted about 682,142 people worldwide, and 12,751 Facebook users sent or received election reports (ibid).

In order to generate monitoring data at the grassroots levels, the general public was considered an immediate source of information as they can collect information, but in most cases, they do not have the proper infrastructure to share it. Therefore, social media accounts were created like the Facebook page to give their election observations greater platform. The content communicated was strictly based on the election events and was divided into three categories: campaign period, voting or election period, and post-election period (TACCEO, 2015). During the pre-election period, the public could send and receive information on the campaign in their local areas. Based on the videos and pictures generated, analysis showed a new type of election campaign – mobile campaigning. Campaigners were seen going door-to-door to mobilize people to vote for them. Monitoring reports shows women, men, and children to have taken an active part in the mobile campaign process. However, reports generated through social media platforms show concern about the way these campaigns were conducted. Most mobile campaigning was observed after the normal campaign time had concluded and occurred without proper authority supervision (ibid).

According to TACCEO (2015), the Facebook page was used to assess the coverage and outreach of the election content from and to the public. About 12,751 Facebook users used this page; 9% were women, while 91% were men. This data shows that women participated less in election monitoring and generating information through ICTs. For both women and men, the most engaged age was between 25 -34. This group, male engagement was 44%, and female engagement was 4%. The 13-17 age group was the least engaged.

However, it can be argued that they are not potential voters, as the law requires voters to be 18 years and older to qualify for registration and voting.

7. Challenges of digital crowdsourcing election monitoring

The key informant interviews and document reviews revealed several challenges related to crowdsourced participation in election monitoring as discussed below.

Digital divide and lack of motivation to participate

The degree of internet use, mobile phone network coverage, and internet/phone subscriptions can predict the likelihood that a citizen will participate in crowdsourced monitoring. The question of network accessibility and internet connectivity, as well as the knowledge of how to use the technology itself, are the most critical issues facing crowdsourced election monitoring programs (Ye and Yang, 2020). In Tanzania, with many people living in rural areas, the digital divide is one of the key challenges inhibiting citizen participation in election monitoring through crowdsourcing methods (Sedoyeka, 2012). The digital divide was also one of the respondents' greatest concerns. As one key informant argued, one of the major limitations is that many people still think mobile phones are only meant for calling relatives and friends (Interview A, 05.08.2020). Even SMS is still considered only of use when one does not have enough credit to call (Interview H, 05.11.2020).

There are challenges to citizen participation in crowdsourced monitoring in both mastery and social perceptions of technology (Iwuoha, 2018). Technology use requires motivation. Subscribing or owning an internet supporting mobile phone does not automatically mean it will be used. Most probably, as the respondent above noted, people will still limit the use of their mobile phone to basic usage – just for calling. Here, another respondent testimony notes how technology is used depends on people's motivation to actively participate in election monitoring. This respondent argues that:

> What I see is not the problem of the technology, but rather the peoples' lack of interests in using the technology available to enhance their political activism. Given the number of people living in the rural areas, such participation could be considered as a form of luxury, something that not many rural people may have time to enjoy. In that respect, technology deployment such as the use of mobile phones in elections

> may not end up being a very good and thoughtful decision as technology can only simplify things but not initiate. Because of this, the use of the very gadgets in political mobilisation is not reliant on the utility of technology but rather on whether one is interested in participation. Therefore, I think there is a need for raising civic awareness first before the expectation that technology can change things (Interview L, 17.11.2020).

Motivation for participation emanates from the citizens' limited civic literacy in terms of understanding their responsibilities beyond voting (Aitamurto, 2012).Civic education is not only imperative to election monitoring participation, but also to the broader context of active participation in democratic processes. The nature and degree of people's political apathy and their tendencies towards the apolitical may hinder citizen participation. The trend for suppressing opposition parties decreased people's enthusiasm for participating in electoral processes, as they found the space-constrained and were unsure if their vote would be respected (Collord, 2021; Cheeseman et al. 2021). Some voters decided to abstain from electoral participation because of protests and arrests by the police (Collord, 2021). Mismanagement of the electoral process also manifested in the Tanzanian local government elections. As a result, in 2014, the ruling party *Chama Cha Mapinduzi* won three-quarters of the seats, but won 99% of seats in 2019 election (Africa news, 2019)[1]. The United Nations policy brief observed that:

> [...] individuals who engaged in face-to-face civic education were significantly more participatory at the local level, more knowledgeable about politics, more aware of how to defend their rights, and more informed about constitutional issues and the desirability of public involvement in the constitutional review process (UNU–WIDER, 2014).

This hints at the imperative of civic education as the basis for citizens' active participation in politics, of which election monitoring is part. If people are motivated and know the role of elections in democratic governance, it would

[1] However, this was largely due to a massive and trivial disqualification of opposition candidates during the nomination process

make it easier for them to utilize the available technology to protect their votes (Interview L, 17.11.2020). Moreover, crowdsourcing methods have the ability to go beyond election monitoring to ensure and control other issues related to transparency and accountability (Bader, 2013).

Communication costs and poor connection

Connected to the digital divide is the question of communication cost, largely caused by the lack of reliable and affordable internet. These two issues make it hard for some citizens to participate in crowdsourced monitoring in local elections. One of the respondents reported that:

> Assume that I am not wealthy, so when I buy a weekly package consisting of some minutes and messages, I cannot just use them for something like politics since I will get nothing in return. So, for me, once I cast a vote, I am through; things of election monitoring are not my responsibilities. Therefore, if non-governmental election monitoring organisations really want ordinary citizens to participate in local election monitoring processes, why do they not give them airtime to do so or just create a number for tall free services to generate the reports? To be frank, ordinary citizens cannot use the little package for political matters, which does not give me any material return (Interview I, 11.11.2020).

The cost of internet bundles and other packages inhibits free participation (Mfaume, 2019). Once people become cautious of communication costs, it is understandable that it can influence their communication behaviours – i.e., not using available airtime in fear of running out. Nevertheless, the cost of communication is linked to the larger problem of poor infrastructure. Most mobile phone signals in Tanzania still depend on satellite connections through a series of transmission towers, which contribute to the high cost compared to connections provided by broadband cable. Although Tanzania's cost per gigabyte is still the lowest in the East African region at US$ 0.73 – compared to $ 1.02, 1.48, 1.62 and 2.12 in Kenya, Rwanda, Uganda, and Burundi, respectively (Statista, 2020), the cost is still higher if compared to the individual income ratio. The cost is still not affordable to many, especially in rural areas where poverty levels are high (World Bank, 2020). In Tanzania, statistics from the World Bank show 49.4% of people live on less than $1.90

per day (ibid.). The view on the issues of costs and poor connection were also forcefully hinted at by another respondent:

> When it comes to costs of communication, I think there are two challenges: first, price of mobile handsets, and second, the means of internet or mobile network connection. With regard to the first challenge, the cost of buying a mobile handset that can support participation in the platforms for elections monitoring information is expensive. As we might be aware, the phone which supports bulk messaging is not that cheap, and hence though the number of mobile subscribers has increased, it is not in itself equal to using the internet as the most preferred means of crowdsourcing methods. Second emanates from the poor infrastructure since most of the internet providers still depend on transmission towers instead of using the already laid the optical fibre network connecting all the regions and most districts in Tanzania, which would have reduced the cost of the internet access. These two makes it hard for the internet provision in terms of having reliable connection and affordable cost (Interview C, 14.08.2020).

Citizen participation through crowdsourcing largely depends on having a reliable network to allow instant communication for information sending, receiving, and verification. Unfortunately, limited network coverage, especially in the most rural areas, hinders citizen participation in election monitoring and information sharing. And as the respondent above noted, one wonders why it is taking so much time for mobile internet network and connection providers to use the existing optical fibre cables. This would have done two things at once: improve internet connectivity and reduce the cost. However, because of the cost, very few citizens are willing to use their available credits SMS services to participate, which challenged the effectiveness of crowdsourcing methods. Also, election monitoring ought to find out how to use SMS as a more reliable communication. It is readily available to almost anyone with a basic mobile phone and avoids using social media networks that may not be available to many citizens.

Poor preparation and planning for crowdsourcing election monitoring

Another challenge concerns the election monitoring organisations and how they involve citizens in planning, training, and education or advocacy. Many deploy election-monitoring personnel on-sites, but sometimes there are not well-equipped with adequate information about their role. As one respondent put it:

> We see people who call themselves election monitors. Even others used to send messages encouraging ordinary citizens to give them information about observed incidences in the conduct of elections in their localities. The question is: how can someone just begin sending messages about elections relates issues to a phone number whose owner is unknown? Why do they need these monitoring reports? How can the sender be assured if they will not twist the information sent to them? How about the privacy issue of the sender? In fact, most of these messages are ignored (Interview G, 24.09.2020).

This indicates a lack of understanding of the importance of election monitoring and why citizens should take part in ensuring elections are conducted as per set laws and standards. Voters think that the duty is just to vote because citizens associate voting in elections with public services and maybe rewarded with collective goods (Rosenzweig, n.d.).This may be the result of a lack of voting education, as well as poor coordination between election management bodies. Citizens seem unaware of the necessity of monitoring to promote election integrity. As Shayo and Kersting (2017) argue, there seems to have been no proper coordination among key stakeholders about voter education and the role of citizens in monitoring the integrity of elections. It looks as if, in the 2014 local elections, ordinary citizens were ambushed with little preparation for crowdsourcing monitoring. It was, therefore, difficult for them to accept their roles and act accordingly (Interview E, 09.09.2020).Also, it seems they hardly see how such activities may contribute towards making elections more transparent and credible (Interview M, 19.11.2020).

Furthermore, the reasons behind the use of crowdsourcing monitoring should be very clear. As Sumner et al. (2020) warned collecting data for election monitoring through crowdsourcing should not happen because it is cheap but rather because it is the most effective tool for monitoring elections.

To overcome this, monitoring organisations must consider proper planning. As Seltzer and Mahmoudi (2013) argue, this planning need to involve the participants themselves to build their confidence and familiarity with the technology deployed. All these points need to be addressed when planning to use crowdsourcing methods for monitoring.

The Harvard Humanitarian Initiative and Knight Foundation (2010) offer some recommendations as to the next steps for citizen participation in election monitoring through crowdsourcing methods. These recommendations include: (1) plan early: one resounding challenge is aiming to achieve many objectives in such a short time. Planning early, from 6 to 12 months prior to an election, is strongly and widely recommended; (2) build effective partnerships: defining and agreeing on roles, responsibilities, and expectations will help partners implement a successful project; (3) develop strategies (for example, feedback to action, security, and privacy) that should aim to: (i) improve the filtering and verifying large volumes of information; (ii) strengthen feedback loops and actions by building an urgent response team; (iii) provide any necessary security and privacy plans for the project and its users; and (4) use simulation exercises to identify obstacles, test new technology, and improve workflows and communication approaches.

Political parties, election management bodies and the question of trust

Political parties encourage citizens to hover around the voting station within the distance allowed by laws. Conversely, electoral management bodies call for citizens to avoid breaching the laws and, if possible, to return home after casting their votes. This approach creates confusion for citizens. Confusion and lack of trust between these two stakeholders can inhibit citizens' participation in election monitoring. As one of the respondents said:

> One of the things that reduce citizens' readiness to participate in election monitoring emanates from what politicians tell them. In campaigns and internal party elections organisations, some of the parties urge their supporters to guard the votes at the voting station until the results are officially declared by the relevant authorities. This is different from what most election management bodies encourage and advocate. This, as I see, demonstrates how political parties do not trust what election bodies do and also how monitors do not support what political parties advocate as part of monitoring in order to make sure

> their votes are safe and not rigged. This division confuses many citizens who find themselves unclear of which way to go and what information should share with political parties and election monitoring organisation (Interview K, 24.10.2020).

This impedes election monitoring organisations to engage citizen groups in generating observation data. The work of monitoring organisations contributes to increased election credibility (Bush and Prather, 2017). But the consequence is citizen mistrust, leading to citizens refraining from participating in any activity related to election monitoring (Interview B, 05.08.2020). At times, the monitoring organisations are labeled as puppets of the ruling party, as reported by an election monitoring representative.

> Lack of trust, especially among politicians over what election monitoring organisations do, affect and reduce the motivation of citizen in sharing what they see related to elections. As a result, there are sometimes elections monitors who get false information whose origin is from a particular candidate who, after seeing that s/he has no possibility of winning or when one wants to safeguard himself or herself. They sometimes create fake information about other candidates or political parties in order to draw attention to election monitoring organisations to be on their guard (Interview J, 07.10.2022).

Conflicting interests among political parties, electoral management, politicians, and individual election monitors is detrimental to citizens' motivation to participate in politics, and especially election monitoring. When political parties and election monitors do not trust each other, it sends a bad signal, encouraging citizen apathy and ultimately leading to people doing the bare minimum – voting – or withdrawing from political participation altogether (Interview B, 05.08.2020). The consequence is the decline of election integrity, furthering citizens' lack of political trust. This is detrimental, not only to election monitoring processes but to the wellbeing of democracy as a whole. As has been argued (Kavakli and Kuhn, 2020), there is a need for election monitoring bodies to establish cordial relationships with political parties and election management authorities if they want to be legitimate and be trusted. Failure to this will affect their present and future work, as they

will lack citizen support. Without political trust, the whole question of good governance and accountability will suffer.

8. Opportunities and threats for citizen participation in crowdsourcing

Regardless of the challenges that crowdsourcing faces, there are opportunities available to deploy it as one of the most appropriate, accessible, and affordable methods for election monitoring. Election monitoring agencies should seize available opportunities by devising more attractive campaigns and systems to allow for easy instant communication and feedback. This is likely to increase monitoring credibility while meeting other consequential benefits, including increased transparency and reduced corruption. Recalling the crowdsourcing experience, one informant was of the view that:

> Although there are a number of challenges associated with the use of crowdsourcing in election monitoring activities, still there are more opportunities for this method and tool for election monitoring. There has been an increase in the number of mobile users, expansion of mobile network coverage and an increase in the degree of mobile phone services uptake in rural and urban areas. All these make the proper utilisation of mobile technology in election monitoring a rich and untapped resource to reduce cost and provide information on election in real-time (Interview F, 10.09.2020).

Mobile phone users are currently transitioning from feature phones to smartphones that provide new and more efficient information sharing platforms at affordable rates (Shayo, 2021). There is now a paradigm shift from using mobile phones to mobile applications. Mobile users now use more data to chat, internet call, and share pictures and videos on social media and microblogging platforms. A lot of new digital communication tools are emerging and becoming the preferred communication options – surpassing phone calling and short message services (Shayo, 2017). Shayo (2017:305) reported that:

> Now short message services are sometimes more expensive than buying an internet data bundle as long as users have smartphones, laptops, or tablets. It is easier to maintain a smartphone at a lower cost than normal mobile phones with no access to the internet. The costs of buying mobile internet data which can be used for communicating and

chatting information with a lot of messages and exchange of information, as well as pictures is relatively cheaper than buying a bundle of normal SMS where the sender and recipients may not share the common channel and cost of communication. With smartphones, people can make even internet calls with groups of people using applications such as Facebook Messenger, Whatsapp, Skype or Google Hangouts and even sharing texts information and pictures. But mobile SMS is only limited to texts and calls.

As the government continues with its rural electrification implementation, the challenge of mobile phone charging will be soon forgotten. What needs to be done now is for election monitoring organisations to focus on the most accessible aspects of mobile phones and ensure citizens are aware of how the technology can be used (Schuler, 2008). One way to tap into this resource is by ensuring the numbers used are toll-free so that anyone, even those who have no credit or messages in their mobile handset, may easily share electoral incidents with the relevant crowdsourcing organisations.

On the other hand, alongside the countless opportunities for citizen participation in crowdsourcing through digitalisation, technology creates potential threats in different ways depending on the country concerned. This is because technology does not automatically provide a space for citizen participation through crowdsourcing to share information freely in democratic processes. Development of new legal framework set the laws, rules and regulations for safeguarding the cyberspace as more users and content gets online. In order to achieve this objective the government of Tanzania enacted a wide array of laws such as the Statistics Act of 2015 and the Cybercrimes Act of 2015, as well as the Electronic and Postal Communications (Content) Regulations of 2018 (Jeremia, 2022).

While the underlying rationale for enacting these Acts and regulation seems to be useful for strengthening digital government, on the other hand, the Acts have threatened citizen participation in local democratic processes. For example, the decision of the government to enact Statistics Act of 2015 and Cybercrimes Act of 2015 is perceived as a way to control the use of digital devices and platforms for information sharing in electoral processes (LHRC and TACCEO, 2016). In the 2015, it was observed that "cybercrime law was 'quickly' passed and assented to by the President for implementation at the middle of the campaigns" (LHRC and TACCEO, 2016:18). TACCEO had its data

centre for election observation; electronic devices were seized by the police under the cybercrime Act of 2015 (ibid.). Therefore, the raiding of the TACCEO observation centre by the police under section 16 of the Cybercrimes Act of 2015, raised concern over the use and implementation of the Act. In addition, digital communication control is raising entry barrier for citizen participation in democratic process, especially in the co-production and co-dissemination of election monitoring data (Jeremia, 2022).

9. Conclusion

Digitalisation and crowdsourcing method in monitoring is seen as an important ingredient in the increasingly technology-based elections for reinforcement of participatory approach. This article has attempted to provide an analysis of digital crowdsourcing and challenges of citizen participation in crowdmonitoring local government elections in Tanzania. Our analysis indicates that digital ICTs infrastructure can be used to engage crowdmonitors in order to promote and protect democratic elections, but crowdsourced monitoring and digital tools are not a "silver bullet" in addressing all challenges and problems of election integrity. Rather, other traditional and offline methods of observation are indispensable.

In the 2014 local government elections in Tanzania, crowdsourced methods and digital technology tools were deployed for monitoring the integrity of elections. The deployment of crowds involved bounded and unbounded crowd-monitors, and passive observer's data were mined from social media networks, especially Facebook. Bounded crowdmonitors played a key role in generating trusted election data and, as data verifiers. The success stories of crowdsourcing through digitalisation can be observed through presented data on election irregularities and other negative reports about electoral process. In this regard, crowdsourcing methods provided another level of access to active political and democratic processes. However, this form of participation also has to reflect the nature of elections being monitored. To enhance citizen participation, crowdsourcing activities have to be somehow decentralized, allowing for more people on the ground in various locations for ease of information verification and better reporting.

On the other hand, while crowdmonitoring is deployed in local elections, costs, poor preparation and planning, digital divide, trust and poor infrastructure hamper crowd participation in monitoring. In order to improve existing efforts, we propose opportunities to promote crowdsourcing citizen

participation through digital tools in forthcoming local elections. These includes the use of mobile phones for free short message services, early planning and building partnerships among government institutions, mobile service providers, election monitoring organisations, and the citizens. Election stakeholders should partner together so that to reap from the opportunities provided by technological developments in digital communication to improve the integrity of elections.

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